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“How Trade With The Organization Of Islamic Corporation Impacts Pakistan’s Economic Growth”

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ABSTRACT

This study examined the impact of Pakistan’s trade with OIC on country’s economic growth by using data from 1976 to 2023. The ADF indicated a mixed level of integration. Therefore, the study utilized the bound test to check the existence of cointegration. The ARDL outcomes indicated that exports to OIC had positive impact on economic growth of Pakistan, whereas negative influence of imports from OIC on economic growth. Results also supported inflation-led growth hypothesis. Furthermore, exchange rate and gross fixed capital formation also recorded positive impact on economic growth. Furthermore, the error correction term was found to be significant with the correct sign. The TSLS results supported the ARDL findings, indicating robustness of the results. Moreover, the CUSUM and CUSUMSQ test confirmed the stability of the model. therefore, the study recommends that government should provide incentives to import substitution industrialization that would play an important role in reducing import reliance. Additionally, Pakistan should diversify exports to OIC countries by product that would accelerate economic growth of the economy.

Introduction

Economic theory has established the well-known pathways by which trade can impact growth. Trade is thought to enhance the efficient allotment of resources, speeding up the spread of knowledge, drive high-technology advancement, and promote competition in both local and global markets, resulting in optimized production processes and the initiation of new products (Busse and Koniger, 2012). Export expansion, as per economic theory, boosts the production of goods and services through various channels, such as the dissemination of technical knowledge for effective resource allocation and increased output (Saleem et al., 2023).

Several studies have highlighted the Export-led growth and Import-led growth theories, which have shown the prevalence of these trends among nations, particularly in the case of Pakistan. Pakistan has been experiencing a slowdown in economic growth over the past decade. According to the Economic Survey of Pakistan, the real GDP growth was 3.6 percent in FY2013, but it sharply declined to 0.29 percent in FY2023. This decline could be attributed to various international and national factors that have led to lower exports compared to higher imports, resulting in a trade deficit issue and giving rise to multiple economic challenges. The Economic Survey of Pakistan for FY2023 uncovered that the Organization of Islamic Cooperation (OIC) ranked as the second-largest regional exporting partner of Pakistan, accounting for 15.2 percent of total exports after the OECD. On the other hand, the OIC was identified as the top regional importing partner of Pakistan, representing 27.9 percent of total imports.

A significant amount of literature is available that aims to assess the relationship between various indicators of the external sectors of the economy and the economic growth of Pakistan. Several studies, such as Shiraziet al., (2004) and Ullah et al. (2009) have examined the Granger Causality between exports, imports, and economic growth in Pakistan. Additionally, Abbas (2012) and Hussain (2014) have valued the causality between exports and economic growth in the country. Furthermore, there are studies that have employed regression methodologies in conjunction with Granger causality. For instance, Jawaid (2014) inquired the influence of exports, imports, and trade volume on the economic growth of Pakistan, while also considering Granger causality. Saleem et al. (2023)

utilized Non Linear ARDL along with Granger causality to inspect the prevalence of the export-led growth hypothesis in Pakistan. Bibi et al. (2014) assessed the influence of trade openness, imports, and exports on the economic growth of Pakistan. Ali and Abdullah (2015) conducted a regression evaluation to assess the relationship between trade openness and economic growth in Pakistan. Ahmad et al. (2017) applied the ARDL approach to evaluate the effect of exports and imports on economic growth. Lastly, Rehman et al. (2022) investigated the determinants of economic growth in Pakistan, specifically focusing on food exports, manufacturing exports, communication technology exports, and total exports of goods and services, using the Non Linear ARDL methodology.

Despite the copious amount of literature available, the trade deficit continues to impact Pakistan's long-term economic growth. This highlights the necessity for a thorough analysis to provide more detailed policy recommendations. The primary focus of this study is to explore how Pakistan's exports and imports with the Organization of Islamic Cooperation (OIC) influence the country's economic growth. Data from 1976 to 2023 was utilized at an annual frequency. The Autoregressive Distributed Lag Model was applied to achieve the primary goal of the study, while the Two Stage Least Square method was used to review the model's robustness.

The literature review is presented in Section 2, while the Model and Methodology are discussed in Section 3. Section 4 and Section 5 provide an overview of the Empirical Findings and Conclusions with Policy Recommendations, respectively.

1. Literature review:

Export-led growth (ELG) is often seen as a key factor in stimulating the expansion of production and employment within an economy. ELG is supported by four main arguments. Firstly, export growth triggers an expansion in output and employment through the foreign trade multiplier effect. Additionally, the foreign currency obtained from the increase in exports allows for the purchase of capital goods, thereby improving the economy's ability to produce goods. Thirdly, the expansion of export markets leads to economies of scale and drives technical advancement in production. Lastly, the strong correlation between export and production growth is considered

empirical evidence in favor of the ELG theory. However, some of these argumentations may not be entirely convincing. The first two arguments are based on short-term Keynesian macro models, which may not fully explain long-term economic growth. While economies of scale and technical progress through international trade are dominant, the assumption of exogenous labor supply and technical change in neoclassical growth models may be questionable. Hence, current studies on neoclassical frameworks incorporating endogenous growth play a vital role in enhancing comprehension of economic progress.

These advancements are particularly important as they create linkages between growth models and static models in the field of international trade. Firstly, it is important to discuss the growth theories proposed by Romer (1986) and Lucas (1988). Romer's theory proposes that there are economies of scale that extend beyond the boundaries of individual firms and instead apply to the industry as a whole. These external economies of scale play a crucial role in counteracting the adverse effects of capital accumulation on the marginal productivity of capital within firms, ultimately leading to a self-sustaining growth process. In contrast, Lucas's model emphasizes the accumulation of human capital as a replacement for exogenous growth in labor supply.

Following the theoretical framework, the primary focus was on extracting literature related to the effects of the external sector on economic growth. This task was not challenging due to the abundance of available literature on the subject. For instance, Makki and Somwaru (2004) analyzed the influence of trade and FDI on the economic growth of 66 underdeveloped countries from 1971 to 2000, using Two Stage Least Square and Three Stage Least Square (Seemingly Unrestricted Regression). The study findings indicated that the involvement of both trade and foreign direct investment (FDI) has a noteworthy impact on economic growth in developing countries. Additionally, the concept of trade openness was explored in studies such as Ali and Abdullah (2015), who investigated the influence of trade openness on Pakistan's economic growth from 1980 to 2010, employing Vector Error Correction Model. The findings revealed a negative effect of globalization on Pakistan's economic growth. Similarly, Tahir and Azid (2015) assessed the effect of trade openness on the economic growth of 50 developing countries from 1990 to 2009, using

Fixed effect, Random effect, and Two Stage Least Square. The study inferred that trade openness has a positive influence on the economic growth of developing nations. Another set of literature focused on trade, exports, and imports as explanatory variables for economic growth, yielding fascinating results. For example, Busse and Koniger (2012) examined the consequence of exports, imports, and trade on the economic growth of 108 countries from 1971 to 2005. Among these countries, 93 were developing, and the authors utilized System Generalized Methods of Moments for their analysis. The outcomes indicated that trade, along with its ability to provide access to new technologies, has a beneficial impact on the economic growth of developing countries. Similar conclusions were drawn regarding exports and imports. In a study inferred by Azeez et al. (2014), Ordinary Least Square was utilized to analyze the impact of exports, imports, and trade openness on the economic growth of Nigeria from 2000 to 2012. The findings indicated a positive effect of exports and imports, but a negative effect of trade openness on the economic growth of Nigeria. Uddin and Khanam (2017) also investigated the impact of exports and imports on the economic growth of Bangladesh from 1981 to 2012, revealing an increasing impact of exports and a negative impact of imports. Similar results were observed in the study by Taghavi et al. (2012) for Iran, using data from 1962 to 2011 at annual frequency with Vector Error Correction Model. Additionally, Ndambiri et al. (2012) found a positive influence on the economic growth of 19 Sub-Saharan African countries from 1982 to 2000, while employing Generalized Methods of Moments.

Then, literature revealed the existence of another group that focused on analyzing the association among export, import and economic growth. For instance, Ramos (2001) discovered that growth led to both exports and imports for Portugal, using data from 1985 to 1998. Similar results were found for Pakistan in Ullah et al. (2009). On the other hand, a few studies only reported growth led exports for Mehta (2015) and Joshi (2022) in Nepal. This advice that a rise in productivity in production leads to enhanced competitiveness in terms of price and quantity, resulting in long-term economic prosperity, as mentioned in Centintas and Barisik (2009). Additionally, studies that found growth led imports include the case of Peru

in Awokuse (2008). The literature also uncovered cases of export led growth, such as Pakistan in Hussain (2014), Argentina and Peru in Awokuse (2008), Panama in Bakari and Mabrouki (2017), and Ghana in Okyere and Jilu (2020). Another significant finding was import led growth, indicating that imports of inputs and technologies necessary for rapid economic growth have recently entered the market and played a crucial role. Import led growth was observed in Panama in Bakari and Mabrouki (2017), Nepal in Joshi (2022), Peru in Awokuse (2008), and finally, in 13 transitional countries in Centintas and Barisik (2009).

2. Methodology and model:

Prior research has concentrated on examining the influence of imports and exports of goods and services on the economic growth of Pakistan. This research aims to assess the influence of imports and exports between Pakistan and the Organization of Islamic Cooperation (OIC) on economic growth. The foundation of this research is influenced by the work of Ramos (2001) and is delineated in the following section,

$$\log(RGDP)_t = \alpha_0 + \alpha_1 \log(EOIC)_t + \alpha_2 \log(MOIC)_t + \alpha_3 \log(NER)_t + \alpha_4 \log(GFCF)_t + \alpha_5 \log(INF)_t + \alpha_6 \log(DCPS)_t + \mu_t \tag{1}$$

The real gross domestic product (RGDP) serves as a proxy of economic growth, while the exports of goods and services to the Organization of Islamic Cooperation (EOIC) and the imports from the organization (MOIC) provide insights into Pakistan's international trade. The nominal exchange rate (NER)¹ and the gross fixed capital formation (GFCF)² are also considered in our analysis. To assess inflation, we rely on the Consumer Price Index (CPI), which serves as a proxy for measuring changes in the overall price level³. Additionally, we examine the domestic credit to the private sector (DCPS) as a proxy for credit availability in the economy⁴.

All the variables mentioned above are measured in US\$ Million and are constant at the base year of 2015. The data for labor force, consumer price index, exports, and imports between Pakistan and the Organization of Islamic Cooperation (OIC) have been obtained from the Economic Survey of

Pakistan. In Lieu, the real gross domestic product and real gross fixed capital formation data have been taken from the World Development Indicators (WDI).

In our analysis, the descriptive statistics of the variables utilized in the model are displayed in Table 1. Furthermore, we conduct the Augmented Dickey Fuller (ADF) unit root test, as proposed by Dickey and Fuller (1979), to detect the stationarity of the variables. The ADF test is an enhanced version of the Dickey Fuller test, incorporating additional lag specifications to address issues of serial correlation and heteroscedasticity.

On the basis of the ADF outcomes, we find that exports to the OIC, imports from the OIC, gross fixed capital formation, and inflation are stationary at the level. However, the remaining variables exhibit integration at first differences. The results of this study offer important perspectives on the fluctuations and resilience of Pakistan's economy, enabling policymakers and scholars to make well-informed choices and pursue further analysis.

Table 1: Descriptive Statistics

Variable	Mean	Median	Std. Dev.	Max. Values	Min. Values	Obs.
LOG(RGDP)	10.26	10.58	0.69	12.95	10.75	48
LOG(EOIC)	8.01	7.78	0.79	9.16	6.82	48
LOG(MOIC)	9.29	9.28	0.61	10.42	8.38	48
LOG(NER)	3.72	3.94	0.92	5.32	2.29	48
LOG(INF)	3.33	3.38	1.10	5.20	1.50	48
LOG(GFCF)	10.16	10.13	0.49	10.91	9.18	48
LOG(DCPS)	3.02	3.11	0.23	3.39	2.63	48

Source: Author's Estimation

Table 2: ADF Unit Root Test

Variables	I(0)		I(1)		Result
	C	C+T	C	C+T	
LOG(RGDP)	-3.6102*	-1.5059	-3.7056*	-5.0721*	I(1)
LOG(EOIC)	-1.6286	-3.569**	-5.2372*	-5.2172*	I(0)
LOG(MOIC)	-0.665	-4.5841*	-6.7839*	-6.7724*	I(0)
LOG(NER)	-0.5201	-2.2303	-5.8133*	-5.6493*	I(1)
LOG(INF)	-1.0635	-3.639**	-4.1113*	-3.9876*	I(0)
LOG(GFCF)	-1.6793	-3.6476**	-4.0406*	-4.2188*	I(0)
LOG(DCPS)	-1.1351	-3.8942**	-6.0805*	-6.022*	I(0)

*Significant at 1%, **Significant at 5%, ***Significant at 10%
Source: Authors Estimation

After the stationary analysis, we need a method for long run estimates, which are available in different variety in the literature. This study is going to

¹As used in (Chu et al., 2019)

²As used in (Ali, 2015)

³As used in (Ahmed et al., 2015)

⁴As Used in (Bui, 2020)

adopt the Auto regressive Distributed Lag Model (ARDL), which produces best results when the variables are integrated at different orders, and was found by (Pesaran and Shin, 1998).

The bound test is used in ARDL for checking the existence of long run relationship among the variables. The bound test is tested with an F Statistics to check joint significance on the null hypothesis

stating, $H_0: \alpha_1 = \alpha_2 = \alpha_3 = \alpha_4 = \alpha_5 = 0$, against an alternative hypothesis stating $H_A: \alpha_1 \neq \alpha_2 \neq \alpha_3 \neq \alpha_4 \neq \alpha_5 \neq 0$. Two critical values allow a test for cointegration, the lower critical bound I(0), and an upper critical bound I(1).

If the F value is below the lower bound, cointegration is not present. If the F value falls between the lower and upper critical bounds, the results are inconclusive. A long-term relationship is only present if the F value surpasses the upper critical bound, as mentioned in (Pesaran and Pesaran, 1997).

$$\log(RGDP)_t = \alpha_0 + \sum_{i=1}^n \varphi_1 \Delta \log(RGDP)_{t-i} + \sum_{i=0}^n \varphi_2 \Delta \log(EQIC)_{t-i} + \sum_{i=0}^n \varphi_3 \Delta \log(MOIC)_{t-i} + \sum_{i=0}^n \varphi_4 \Delta \log(INF)_{t-i} + \sum_{i=0}^n \varphi_5 \Delta \log(LF)_{t-i} + \sum_{i=0}^n \varphi_6 \Delta \log(GFCF)_{t-i} + \varphi_7 ECT_{t-1} + \varepsilon_t$$

(2)

After the bound test, we move for the long run estimates, mentioned as Equation 1, whereas the equation 2 is the short run ARDL equation. $\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5$ are the long run elasticities, whereas $\varphi_1, \varphi_2, \varphi_3, \varphi_4, \varphi_5, \varphi_6$ are the short run elasticities. ECT is the error correction term, and φ_7 is the coefficient which will indicate whether the real GDP will be converging back to equilibrium or diverging away from equilibrium.

3. Empirical results:

The aim of this research is to examine the influence of imports and exports of Pakistan and the Organization of Islamic Cooperation (OIC) on Pakistan's economic growth, utilizing annual time series data spanning from 1976 to 2023. The presence of a cointegration in the model is verified through the ADF bound test for cointegration. The long-term and short-term elasticities are calculated using the Autoregressive Distributed Lag Model (ARDL) and Error Correction Model (ECM) respectively. The model's stability is valuated through Cumulative Sum (CUSUM) and Cumulative Sum of Square (CUSUMSQ) tests. Additionally, Two Stage Least Square is utilized to evaluate the model's robustness.

i. Long Run Relationship Test:

Following the findings of ADF, which revealed that variables are integrated at varying levels, we proceeded to utilize ARDL for our analysis. This approach ensures that our results are unbiased and consistent, as demonstrated in the study by Ahmad et al. (2017). The bound test was employed to determine the presence of a long-run relationship, while ARDL was used for the analysis. The outcomes of the bound test are presented in Table 3. According to the findings, the F value is statistically significant at the 2.5 percent level, providing evidence of cointegration in the model.

Table 3: Bound Test

Test Statistic	F-statistic	K
Value	3.67	6
Significance Levels	I(0)	I(1)
10%	1.99	2.94
5%	2.27	3.28
2.5%	2.55	3.61
1%	2.88	3.99

ii. Long Run Elasticities:

Table 4 presents the long run elasticities of the model. The exports and imports of goods and services turned out to be highly inelastic. Where, the import from OIC is significantly negative, as found in (Saleem et al., 2023). It indicates that import-led growth doesn't exist for the imports from OIC. The another most common justification of this negative impact is that higher imports results in deterioration of country's foreign exchange reserves, as mentioned in (Kartikasari, 2017). Another justification for the case of Pakistan could be underlined with a fact that exports of Pakistan is highly reliant on imports of heavy machinery and raw materials for industrialization, as mentioned in (Zaidi, 2015). Thus, this adverse influence could be an indication that the imports from OIC don't play any part in the production of exportable products or the industrialization process. This puts pressure on foreign reserves and simultaneously affects the economic growth of Pakistan. In Lieu, the exports of goods and services have a significantly beneficial effect on economic growth, as mentioned in (Ullah et al., 2009; Bakari and Krit, 2017; Uddin and Khanam, 2017). This is strong evidence of export led growth prevailing in case of Pakistan, as mentioned in (Saleem et al., 2023). The results also indicated a favorable influence of

nominal exchange rate on economic growth, similar results found in (Chu et al., 2019; Okyere and Jilu, 2020). This could be because devaluation of domestic currency effect economic growth from two directions. Firstly cheaper availability of Pakistani export to exporting partners thus increased demand of Pakistani exports leading to rise in income and economic growth. Lastly, devaluation of domestic currency results in making imports expensive, discouraging importable products and promotes import substitution industrialization, which also boosts the income and economic growth of the country. Economic growth elasticity with respect to inflation and gross fixed capital formation was found to be inelastic. Inflation exerts a notable beneficial impact on economic growth of Pakistan, as found in (Uddin, 2021; Chu et al., 2019). This implies that economic growth isn't possible with low inflation. Pakistan higher economic growth would be achievable at the cost of higher inflation. Thus, it also proves the existence of growth-inflation trade off, as mentioned in (Chu et al., 2019). Gross fixed capital formation also had a beneficial impact on economic growth, as found in (Ali, 2015; Aslan and Atinoz, 2021; Saleem et al., 2023; Ullah et al., 2009; Yakubu et al., 2020). This result is the evidence of endogenous growth theory, which implies that physical capital plays a considerable role in economic growth of Pakistan. The adverse and insignificant influence of domestic credit, indicates that domestic credit to private sector doesn't perform any part in determining economic growth of Pakistan, as also found in (Edward, 2018). This could be due to the political instability and business unfriendly environment situations prevailing in Pakistan.

The lower part of the table indicates that R^2 and adjusted R^2 are 99%, indicating the independent variable in the model explains 99 percent of the dependent variable. The 1 percent significant F statistics indicates that all the independent variable plays an important role determining the economic growth of Pakistan. The base part of table 4 presents the diagnostic tests too. As per the results, the model is clear from the problems of heteroscedasticity, autocorrelation, Non-Normality and functional form. This indicates that the results of the model are unbiased and consistent.

Two Stage Least Square (Theil, 1953) is an econometric approach which provides the results which are free from the problem of endogeneity and heteroscedasticity. The first stage includes the

running of basic regression of all the independent variables against the other variables. Then the last stage used the fitted values of regressions from first stage as independent variable against the real GDP. The later column of table 4 illustrates the findings for Two Stage Least Square as robustness or sensitivity analysis, as also employed in (Aman et al., 2017). The results of two stage least square supports the results of ARDL, thus indicating that the results of ARDL is insensitive to any changes.

Table 4: Long Run Elasticities with Robustness Analysis

Variable	ARDL	2SLS
<i>LOG(EOIC)</i>	0.071 ** (2.050)	0.040 ** (2.383)
<i>LOG(MOIC)</i>	-0.139 ** (-2.257)	-0.093 * (-3.727)
<i>LOG(NER)</i>	0.221 ** (2.442)	0.183 * (4.475)
<i>LOG(INF)</i>	0.225 ** (2.356)	0.207 * (4.556)
<i>LOG(GFCF)</i>	0.337 ** (2.076)	0.534 * (9.397)
<i>LOG(DCPS)</i>	-0.065 (-0.625)	0.007 (0.134)
<i>C</i>	7.901 * (5.750)	5.686 * (12.45)
<i>Selected Model</i>	(4, 1, 1, 0, 0, 1, 0)	
<i>R²</i>	0.999	
<i>Adj. R²</i>	0.999	
<i>F-stat. [Prob.]</i>	3348.958 [0.0000]	
<i>Durbin-Watson stat</i>	1.70	
<i>A. Functional Form</i>	F(1,29) = 1.08951 [0.3052]	
<i>B. Serial Correlation</i>	F(2,28) = 0.86669 [0.4313]	
<i>C. Heteroscedasticity</i>	F(13,30) = 0.53575 [0.8832]	
<i>D. Normality Test</i>	Jarque-Bera = 0.365174 [0.8332]	

*Significant at 1%, **Significant at 5%, ***Significant at 10%

T values in brackets () and Probability in []

- Ramsey RESET Test
- Breusch-Godfrey Serial Correlation LM Test
- White Test for Heteroscedasticity
- Jarque-Bera Test for Normality Distribution

iii. Error Correction Model

Table 5 illustrates the short-run elasticities of our model along with the error correction model. The error correction term is significant with correct sign, indicating the convergence of real gross domestic product back to its equilibrium, similar results found in (Keong et al., 2003). The result also indicated an adverse influence of real GDP of previous period on current economic growth, similar results found in (Joshi, 2022). The beneficial influence of gross fixed capital formation has also been recorded on economic

growth in short run, similar results in (Saleem et al., 2023).

iv. Stability Analysis:

The CUSUM and CUSUMSQ are employed to check stability of the model. If the blue line lies between the red dotted line (95% confidence Interval), then it could be concluded that the model is stable. The Figure 1 shows the CUSUM and CUSUMSQ Test for the model of this study. As it can be seen that the blue lies between the red dotted lines, it's concluded that the model of this study is stable.

Table 5: Error Correction Model

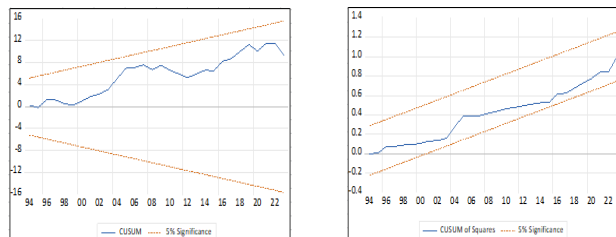
Variable	Coefficient	T-Statistic [Prob.]
<i>DLOG(RGDP(-1))</i>	0.036	0.3068 [0.7611]
<i>DLOG(RGDP(-2))</i>	-0.120	-1.0650 [0.2954]
<i>DLOG(RGDP(-3))</i>	0.454*	3.7735 [0.0007]
<i>DLOG(EOIC)</i>	0.002	0.1205 [0.9048]
<i>DLOG(MOIC)</i>	-0.011	-0.6810 [0.5014]
<i>DLOG(GFCF)</i>	0.280*	6.6667 [0.0000]
<i>ECT</i>	-0.334*	-6.0140 [0.0000]

*Significant at 1%, **Significant at 5%, ***Significant at 10%

Source: Authors Estimation

Source: Author's Estimation

Figure 1: Results CUSUM and CUSUMSQ



4. Conclusions And Policy Recommendations

In the era of globalization, trade can sometimes have negative effects on developing countries, particularly when a trade deficit hampers economic growth. Numerous studies have been carried out to analyze the impact of exports and imports on Pakistan's economic growth. This study aims to assess how exports and imports between Pakistan and OIC affect Pakistan's economy, using data from 1976 to 2023 at annual frequency. The ADF test was utilized to determine the stationarity of variables. The bound test revealed a long-run relationship. The ARDL and ECM models were employed to estimate the long-run and short-run elasticities of the model. The outcomes showed

favorable influence of exports to OIC on economic growth which indicated existence of export-led growth hypothesis for Pakistan exports to OIC. Whereas, the adverse influence of imports from OIC on economic growth indicates the nonoccurrence of import-led growth between Pakistan's imports from OIC and the economic growth of Pakistan. The positive impact of the nominal exchange rate on Pakistan's economic growth suggests that currency depreciation could be used as a policy tool. The beneficial relationship between inflation and economic growth in Pakistan indicates a trade-off between the two. Lastly, the favorable influence of gross fixed capital formation on Pakistan's economic growth was observed in both the long and short run. The significant error correction term with the correct sign suggests a convergence back to equilibrium in economic growth.

According to the outcomes of this investigation, several recommendations have been proposed for policymakers. Firstly, to implement strategies that promotes import substitution industrialization and decrease reliance on imports. Additionally, it is advised to expand the range of exportable goods to potentially tap into new global markets. Providing increased incentives to exporting industries is also recommended as a positive measure to stimulate

economic growth. Moreover, the government is advised to promote investment in underdeveloped sectors of the economy as a means to enhance productivity and economic growth. Using currency depreciation as a policy tool to boost exports, reduce imports, and foster economic growth is also suggested. Furthermore, offering more incentives to the private sector through domestic credit and creating a more business-friendly environment could lead to reduced import dependency and increased export diversification.

REFERENCES

- Abbas, S. (2012), "Causality between exports and economic growth: Investigating suitable trade policy for Pakistan." *Eurasian Journal of Business and Economics*, Vol 5, pp. 91-98.
- Ahmad, D., Afzal, M. and Khan, U. G. (2017). Impacts of Exports on Economic Growth: Empirical Evidence of Pakistan. *International Journal of Applied Economics Studies*, 5(2), 9. https://www.researchgate.net/publication/319643399_Impact_of_Exports_on_Economic_Growth_Empirical_Evidence_of_Pakistan
- Ali, G. (2015). Gross Fixed Capital Formation and Economic Growth of Pakistan. *Journal of Research in Humanities, Arts and Literature Applied*, 1(2), 21 – 30. <https://doi.org/10.1007/s11356-021-12979-7>
- Ali, W., and Abdullah, A. (2015), "The impact of trade openness on the economic growth of Pakistan: 1980-2010." *Global Business and Management Research*, Vol 7 No. 2, pp. 120-129.
- Aman, Q., Ullah, I., Khan, M. I., and Khan, S. U. D. (2017), "Linkages between exchange rate and economic growth in Pakistan (an econometric approach)." *European Journal of Law and Economics*, Vol 44, pp. 157-164.
- Aslan, A., and Altinoz, B. (2021), "The impact of natural resources and gross capital formation on economic growth in the context of globalization: evidence from developing countries on the continent of Europe, Asia, Africa, and America." *Environmental Science and Pollution Research*, Vol 28, pp. 33794-33805.
- Awokuse, T. O. (2008). "Trade openness and economic growth: is growth export-led or import-led?." *Applied economics*, Vol 40 No. 2, pp. 161-173.
- Azeez, B. A., Dada, S. O., and Aluko, O. A. (2014), "Effect of international trade on Nigerian economic growth: The 21st century experience." *International Journal of Economics, Commerce and Management*, Vol 2 No. 10, pp. 1-8.
- Bakari, S. and Krit, M. (2017). The Nexus between Exports, Imports and Economic Growth: Evidence from Mauritania. *International Journal of Economics and Empirical Research*, Vol 5 No 1, pp. 10-17.
- Bakari, S., and Mabrouki, M. (2017). "Impact of exports and imports on economic growth: New evidence from Panama." *Journal of smart economic growth*, Vol 2 No. 1, pp. 67-79.
- Bibi, S., Ahmad, S. T., and Rashid, H. (2014), "Impact of trade openness, FDI, exchange rate and inflation on economic growth: A case study of Pakistan." *International Journal of Accounting and Financial Reporting*, Vol 4 No. 2, pp. 236-257.
- Bui, T. N. (2020). Domestic Credit and Economic Growth in ASEAN Countries: A Non Linear Approach. *International Transaction Journal of Engineering, Management and Applied Sciences and Technology*, Vol 11 No. 2, pp. 1-9.
- Busse, M. and Königer, J. (2012). Trade and Economic Growth: A Re-examination of Empirical Evidence. Available at SSRN: 2009939. <https://dx.doi.org/10.2139/ssrn.2009939>
- Çetintaş, H., and Barişik, S. (2009), "Export, import and economic growth: The case of transition economies." *Transition Studies Review*, Vol 15, pp. 636-649.
- Chu, J. F., Sek, S. K. and Ismail, M. T. (2019). Threshold Effects of Inflation on Economic Growth: Evidence from Dynamic Panel Threshold Regression Analysis for 18 Developed Economies. *Journal of Management, Economics and Industrial Organization*, 3(1), 51-62. <http://doi.org/10.31039/jomeino.2019.3.14>
- Dickey, D.A., and Fuller, W.A. (1979). "Distribution of the Estimators for Autoregressive Time Series with a Unit Root." *Journal of the American Statistical Association*, Vol 74, pp. 427-431. <https://doi.org/10.2307/2286348>
- Edward, A. A. (2018). Private Domestic Investment, Domestic Credit to Private Sector and Economic Performance: Nigeria in Perspective. *IOSR Journal of Economics and Finance*, Vol 9 No. 3, pp. 22-31.
- Eithier, W.J. (1982), "National and international returns to scale in the modern theory of

- international trade.” *Am. Econ. Rev.* Vol 72, 389-405.
- Helpman, E. (1988), “Growth, Technological Progress and Trade.” NBER Working Paper No. 2592. Washington.
- Hussain, M. A. (2014), “Economic growth, exports and imports in Pakistan: Granger causality analysis.” *The journal of business in developing nations*, Vol 13, pp. 31-62.
- Jawaid, S. T. (2014), “Trade openness and economic growth: A lesson from Pakistan.” *Foreign Trade Review*, Vol 49 No.2, pp. 193-212.
- Joshi, U. L. (2022). “Determinants of Economic Growth in Nepal: A Johansen Cointegration Analysis.” *International Research Journal of MMC (IRJMMC)*, Vol 3 No. 1, pp.40-48.
- Kartikasari, D. (2017). The Effect of Export, Import and Investment to Economic Growth of Riau Islands Indonesia. *International Journal of Economics and Financial Issues*, Vol 4 No. 4, pp. 663 to 667.
- Keong, C. C., Yusop, Z., and Liew, V. K. S. (2003), “Export-led growth hypothesis in Malaysia: an application of two-stage least square technique.” *International finance*, 3, 1-21.
- Lucas, R.E.(1988), “On the mechanisms of economic development.” *J. Monet. Econ.* Vol 22, pp. 3-42.
- Makki, S. S. and Somwaru, A. (2004). Impact of Foreign Direct Investment and Trade on Economic Growth: Evidence from Developing Countries. *American Journal of Agricultural Economics*, 86 (3), 795-801. <https://doi.org/10.1111/j.0002-9092.2004.00627.x>
- Mehta, S. N. (2015). “The dynamics of relationship between exports, imports and economic growth in India.” *International Journal of Research in Humanities and Social Sciences*, Vol 3 No. 7, pp. 39-47.
- Okyere, I., and Jilu, L. (2020). “The impact of export and import to economic growth of Ghana.” *European Journal of Business and Management*, Vol 12 No. 21, pp. 130-138.
- Pesaran, M. H. (1997). The Role of Economic theory in modelling the long run. *The Economic Journal*, 107(440), 178- 191. <https://doi.org/10.1111/1468-0297.00151>
- Pesaran, M. H., and Shin, Y. (1998). An autoregressive distributed-lag modelling approach to cointegration analysis. *Econometric Society Monographs*, 31, 371-413. <https://doi.org/10.1017/CCOL521633230.011>
- Ramos, F. F. R. (2001). Exports, Imports, and Economic Growth in Portugal: Evidence from Causality and Cointegration Analysis. *Economic Modelling*, 18, 613-623. <https://ideas.repec.org/a/eee/ecmode/v18y2001i4p613-623.html>
- Rehman, A., Ma, H., Khan, S. U., Munshed, M., Khan, M. K., Ahmad, F. and Chishti, M. Z. (2022). Do Exports of Communication Technology, Food, Manufacturing, and Foreign Investments Foster Economic Growth in Pakistan? An Exploration of From Asymmetric Technique. *Journal of the Knowledge Economy*, 1 – 18. <http://dx.doi.org/10.1007/s13132-022-01052-4>
- Saleem, A., Sial, M. H., Cheema, A. R. (2023) Does an Asymmetric Nexus Exist Between Exports and Economic Growth in Pakistan? Recent Evidence from a Non-Linear ARDL Approach. *Economic Change and Restructuring*, 56, 297 – 326. DOI: 10.1007/s10644-022-09426-z
- Shirazi, N. S., Manap, T. A. A., and Din, M. U. (2004), “Exports and economic growth nexus: The case of Pakistan [with comments].” *The Pakistan Development Review*, pp. 563-581.
- Theil, H. (1953), “Repeated Least Squares Applied to Complete Equation Systems”, *The Hague: Central Planning Bureau*.
- Uddin, H. and Khanam, M. J. J. (2017). Import, Export and Economic Growth: The Case of Lower Income Country. *ISOR Journal of Business and Management (IOSR-JBM)*, 19(1), 37 – 42. <http://dx.doi.org/10.9790/487X-1901053742>
- Uddin, I. (2021). Impact of Inflation on Economic Growth in Pakistan. *Economic Consultant*, 34(2), 33 – 41. <http://dx.doi.org/10.46224/ecoc.2021.2.4>
- Ullah, S., Zaman, B. U., Farooq, M. and Javid, A. (2009). Cointegration and Causality between Exports and Economic Growth in Pakistan. *European Journal of Social Sciences*, 10(2)